Geology 103, Physical Geology Laboratory, Section 01

I. Contact Information

Instructor: Dr. Gary L. Stringer, Professor of Geology and Head, Department of Geosciences, University of Louisiana at Monroe. Office: Hanna Hall 314; phone: 342-1898; fax: 342-1879; e-mail: stringer@ulm.edu. Office hours: 9:00-12:00 (M); 9:00-11:00; 12:00-12:30 (Tu); 9:00-11:00; 12:15-12:45 (W); 9:00-11:00; 12:00-12:30 (Th); call or e-mail for availability at other times and for appointments. Physical Geology laboratory held in **Hanna Hall 326** on **Wednesday from 1:00 to 2:50 PM.**

II. Course Prerequisites/Corequisites

There are no prerequisites for this course since it is a 100-level course. The class supplements and extends the curriculum presented in the Physical Geology lecture class (GEOL 101).

III. Course Description

Two hours laboratory to accompany 101. This course is intended to develop basic knowledge and practical skills needed by amateur geologists and aspiring professionas and to supplement and extend the curriculum covered in Physical Geology 101. Particular emphasis is placed on rock and mineral identification, introductory map interpretation, basic mechanics of groundwater, the interpretation of landforms, and the evaluation of the nature of seismic events.

IV. Course Objectives and Outcomes

A. The student will explain major concepts in physical geology (as presented in the course topics) as evidenced by their scores on the major laboratory examinations.
B. The student will relate geological concepts affect their daily lives as shown by examinations, quizzes, activities, class discussion, and class participation.
C. The student will utilize the process skills and problem-solving skills to solve applications in physical geology-related topics as evidenced by their scores on examinations and activities.

V. Course Topics

Major course topics for Physical Geology 103 include the following:
A. The study of minerals and mineral identification
B. The study of the three rock groups (igneous, metamorphic, and sedimentary)
C. Identification of igneous rocks
D. Identification of sedimentary rocks
E. Identification of metamorphic rocks
F. Aerial photographs and topographic maps
G. Stream valley development and groundwater
H. Landforms and structural features
I. Earthquakes

VI. Instructional Methods and Activities

A. Traditional experiences include advance organizers, lecture/group discussion, and demonstrations presented through PowerPoint (text, 35 mm slides, line drawings, and figures) as well as through models and realia.
B. Clinical experiences may include small group activities, cooperative learning, hands-on/minds-on activities, discovery and inquiry learning, concept mapping, and web-based inquiry.
C. Field-based experiences may include on- and off-campus trips.

VII. Evaluation and Grade Assignment

A. Methods

1. knowledge written examinations (three at 25% each).
2. problem-solving investigations and activities,
3. on-line activities (computer labs across campus may be utilized),
4. collaborative and group projects, and class participation (#2-4 = 25% of grade)

B. Grading Scale

90-100 = A; 80-89 = B; 70-79 = C; 60-69 = D; Below 60 = F

Mid-term grades will be posted on Arrow. Please note that mid-term grades indicate a student's status at that time only and may or may not indicate the final performance outcome.

VIII. Class Policies and Procedures

Students are expected to follow all policies stated in the current ULM Student Policy Manual & Organizational Handbook (see http://www.ulm.edu/studentpolicy/). It is your responsibility to know these policies. Additional class policies include:

A. Textbook(s) and Materials: No text is required but a current physical geology textbook can be very useful and is suggested.

B. Attendance Policy: Attendance policies correspond to those of the university. It should be noted that class attendance is very important in order to facilitate learning. Many of the activities cannot be completed as effectively on an individual basis.

C. Make-up Policy: Assignments are due on or before the indicated date (5% penalty will be assessed for late assignments). Examinations are to be taken on the dates indicated on the schedule. Only excused absences will be accepted for missed examinations. Students may take a written or oral make-up examination at the instructor's discretion and earliest convenience, or the next examination may be counted as two grades.

D. Academic Integrity: All students are expected to follow the ULM published policy on Academic Dishonesty (see Page 4 in ULM *Student Policy Manual* -- http://www.ulm.edu/studentpolicy/).

E. Course Evaluation Policy: All students are expected to complete the ULM on-line course evaluation at the end of the semester.

F. Student Services: Information about ULM student services, such as Student Success Center (http://www.ulm.edu/cass/), Counseling Center (http://www.ulm.edu/counselingcenter/), Special Needs (http://www.ulm.edu/counselingcenter/special.htm), and Student Health Services, is available at the following Student Services web site *http://www.ulm.edu/studentaffairs/*.

G. Emergency Procedures: Discussion of safety issues, fire alarm, and evacuation procedures for ULM. In the event of fire or evacuation for other purposes, do not utilize the elevators but use the stairs located at the west and east ends of the building. In the event that it becomes necessary to evacuate Hanna Hall, please use the nearest exit and assemble in the parking area in front of the building. Please do not re-enter the building until safety officials announce that it is safe.

H. Discipline/Course Specific Policies: Discussion of appropriate computer usage in the computer lab in Hanna Hall and at ULM. Student rights concerning access to educational records are detailed in Federal Public Law 98-380 as amended by Public Law 93-568 and in regulations published by the Department of Education. Student records and class schedules will be released only to students showing proper identification.

IX. Course Schedule

A. Contact Information: Instructor: Dr. Gary L. Stringer, Professor of Geology and Head, Department of Geosciences, University of Louisiana at Monroe. Office: Hanna Hall 314; phone: 342-1898; fax: 342-1879; e-mail: stringer@ulm.edu.
Office hours: 9:00-12:00 (M); 9:00-11:00; 12:00-12:30 (Tu); 9:00-11:00; 12:15-12:45 (W); 9:00-11:00; 12:00-12:30 (Th); often work in the ULM Museum of Natural History (F); call or e-mail for availability at other times and for appointments. Physical Geology laboratory held in **Hanna Hall 326** on **Wednesday from 1:00 to 2:50 PM.**

B. Schedule of classes:

Week 1 August 26 Introduction to class; discussion of syllabus; importance of geology

Week 2 September 2 Minerals (exercises 2-5); mineral identification

Week 3 September 9 Mineral identification continued

Week 4 September 16 Mineral test

Week 5 September 23 Introduction to rocks (exercises 6-8); igneous rocks and their classification

Week 6 September 30 Sedimentary rocks and their identification

Week 7 October 7 Metamorphic rocks and their identification

Week 8 October 14 Review of three types of rocks on Earth (igneous, sedimentary, and metamorphic)

Week 9 October 21 Rock test on igneous, metamorphic, and sedimentary

Week 10 October 28 Weathering and soils

Week 11 November 4 Topographic maps, contours, and profiles

Week 12 November 11 Topographic maps, contours, and profiles continued; geologic map of Louisiana activity.

Week 13 November 18 Review for final examination (scheduled for December 2)

Week 14 November 25
No class for Thanksgiving Holidays

Week 15 December 2 (Wednesday)
FINAL EXAMINATION (normal class time)